a first step:

(i) binding a display vehicle expressing an anti-human antigen receptor on a target human antigen selected from the group consisting of:

(a) an immobilized target human antigen or a fragment thereof;

(b) cells expressing the target human antigen or a fragment thereof, where the cells are optionally labelled; and

(c) a soluble target human antigen or a fragment thereof, the target human antigen being optionally labeled;

a second step selected from the group consisting of:

(ii) removing by washing off the display vehicles that are not bound to (a) or (b) and subsequently eluting the display vehicles that are bound to (a) or (b), and

(iii) positively enriching the target human antigen-bound display vehicles from the suspension of cells expressing the target human antigen (b) or from the target human antigen in step (c);

the said isolated display vehicles comprising the desired anti-human antigen receptor bound to the target human antigen being optionally multiplied by replication and subjected to further rounds of in vitro selection steps (i) to (iii).

11. The method according to claim 10 wherein prior to said selection step one of said VH or said VL chain is selected for binding to said target human antigen together with a surrogate V chain.

13. The method according to claim 12 wherein said selection of a suitable combination involves

(a) testing the same VH chain in combination with a variety of different VL chains for binding to said target human antigen; or

(b) testing the same VL chain in combination with a variety of different VH chains for binding to said target human antigen.

18. An anti-human antigen receptor obtained by the method according to claim 1, said anti-human antigen receptor being low or not immunogenic in humans, and comprising a combination of functionally rearranged VH and VL chains

wherein at least said VH chain is derived from essentially unprimed mature human B-lymphocytes and said VL chain is derived from a naturally occurring human B cell repertoire.

22. The anti-human antigen receptor according to claim 18 wherein said VH is nucleotides 1 to 381 of SEQ ID NO: 143 and said VL chain is nucleotides 1 to 321 of SEQ ID NO: 141.

28. An anti-human antigen receptor obtained by the method according to claim 17, said target human antigen being characterized in that it is derived from human sequences and is specific for the native human 17-1A antigen.

31. The anti-human antigen receptor of claim 29 recognizing an epitope of the extracellular domain of the 17-1A antigen comprising at least one amino acid sequence, SEQ ID NOs: 29, 32, 34, 35, 80, 81, 98, 100.

32. The anti-human antigen receptor of claim 31, wherein the VH chain comprises at least one CDR of one of the following two sequences, nucleotides 1 to 381 of SEQ ID NO: 143 and nucleotides 1 to 339 of SEQ ID NO: 145 and the VL chain comprises at least one CDR of the following two sequences, nucleotides 1 to 321 of SEQ ID NO: 141 and nucleotides 1 to 321 of SEQ ID NO: 147.

A marked-up copy of the amended claims is attached as the Appendix.

REMARKS

Claims 9, 10, 11, 13, 18, 22, 28, 31 and 32 have been amended to comply with the rules for nucleotides and amino acid sequences, to correct typographical errors and to more clearly and distinctly claim the invention. Specifically, claims 9 and 22 were amended to correct typographical errors. Claims 10, 11, 13, 18 and 28 were amended to more clearly state the invention. Support for the amendment of claims 10, 11, 13, 18 and 28 are to be found in the originally filed claims and in the specification at page 10, 4th paragraph; page11, paragraph 3rd paragraph. Claim 31 has been amended to provide the SEQ ID NOs. for the peptides recited. Support for the amendment can be found in Table 3 as originally filed and amended. Claim